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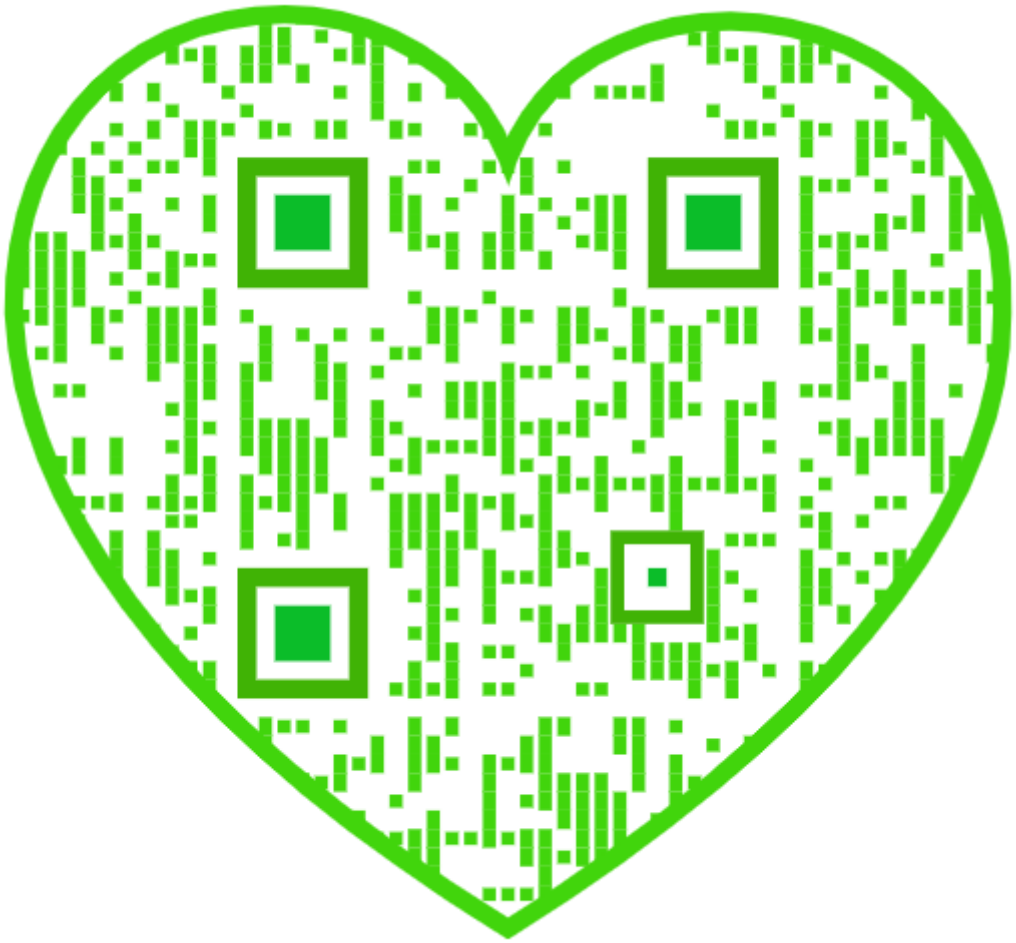

ou and Your Laundry

By

Mrs. Christine Frederick

Price Fifty Cents

"You and Your Laundry"

by

MRS. CHRISTINE FREDERICK

Household Efficiency Expert; Author "The New Housekeeping", "Household Engineering"; Director Applecroft Experiment Station Greenlawn, Long Island

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Thor

Written and Designed Expressly for

THE HURLEY MACHINE CO.

NEW YORK CHICAGO TORONTO

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Thor 32—The last word in clothes-washing efficiency.

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CHAPTER I

Why Friction and Washboard Methods Are Out of Date

THE first cleaning of clothing by a wet or washing method was done in the running water of a river. The women of primitive peoples carried their soiled garments to the edge of a stream, and either held or fastened them down with a rock while they allowed the action of the water to wash out the dirt. Then the women gradually discovered that laying the clothing on a smooth stone, and pounding with another rock or flat stick seemed to remove the dirt more easily. The next step was to build out into the river a sloping, narrow platform, and rub the wash on this wooden surface. Soon they made grooves or ridges in these platforms, and thus was evolved the modern popular "washboard"—which to-day is as much of a discarded antique as tallow dips and warming pans!

All of these early and traditional methods were based on the idea of friction, either by rubbing the pieces on a board or pounding them with some form of paddle. This rub-a-dub-dub method persisted for centuries, not because it was the best way to remove soil from clothing, but because no one, until recent times, studied to find some new and more efficient washing principles.

Just as for thousands of years people cooked their food by holding it on a stick over a bed of hot coals, because more advanced methods of using an iron range or an electric grill had not been discovered, so too, women everywhere have followed the old drudgery washboard-friction habit of washing because the wonderful, labor-saving methods of machine washing were not yet perfected.

There were several steps in the development of successful machine washing, such as is now made possible by the THOR cylinder washer. The first was the discovery that water itself has solvent power, and that by adding to it certain substances, this power, especially over dirt and grease, is still more effective. Primitive housekeepers added wood ashes to the wash water, but found that while this lye "cut" the dirt, it was too hard on the clothes. To lessen such bad effects, they combined lye with fat—and thus originated modern soap.

The second step was a clearer understanding of textiles and of the way in which dirt and grease are absorbed and retained by the various fibres of which textiles are made. Under the microscope cotton and linen appear like strings or ribbons of cells, while wool shows as overlapping fish-scales, which are found to expand when

wet and which if rubbed while wet or subjected to hot water, at once interlock, thus shortening the fibre and resulting in what we call "shrinkage." Now what we call *"soil" in clothing is insoluble particles of dirt held suspended among these fibres by the waste oil* given off constantly by the human skin. *This* oil, or *grease, must be "cut" or attacked so that the dirt particles may be set free from the fibres and carried away* in the wash water.

In other words, it is necessary to be convinced that *to successfully cleanse clothing we must use those methods which will most effectively dissolve grease, and thus permit the dirt to fall away from between the fibres of the clothing.* Modern science has proved to us that such methods are purely chemical reactions—and that grease is best removed, not by rubbing, but by treating it with those substances which have been found to literally dissolve it and change it into other forms. All grease is combinations of fatty acids—and we must use the opposing chemical elements, or alkalis (such as washing soda, ammonia, borax, etc., or variations of them as found in soap), in the wash water in order to break up the grease and permit the real dirt to detach itself from the clothing.

How You Can Get Rid of Hand Rubbing

Every worker must understand this modern principle of the attacking of grease by chemical substances in solution, in order to see why machine washing is so effective. If she grasps this newer idea clearly, she will surely also see how futile, how useless, and wrong was the old-fashioned habit of rubbing by hand, using a washboard, or even a machine based on pounding or friction. *Would all the hand rubbing in the world remove an inkspot from a table-cover?* No! But just add a few drops of the proper neutralizing agent and watch the stain instantly disappear, leaving the cloth spotless! Thus just as a few drops of the right chemical will remove a disfiguring stain, so *the judicious use of grease solvents* like soap, borax, etc., *when added to wash water in solution of the proper strength will accomplish a cleansing of the clothes which could not be equalled by hours of hand rubbing.*

Remember this illustration of the inkspot every time you or any person is led to remark that they "don't see how a machine will wash clothes without rubbing." Even when you did rub the clothes with a bar of soap on a washboard it was not the rubbing, but the alkali or other chemical agent released from the soap which really cleaned, and not the rub. When you used a cake of soap on the washboard you were obtaining only about 10 per cent. of the value of the soap as a cleanser; *when you dissolve that soap and use it in a solution,* or use a solution prepared with other chemical agents which attack grease, *you secure their full* 100 *per cent. value in "cutting" body soil and setting the dirt particles loose* in the wash water.

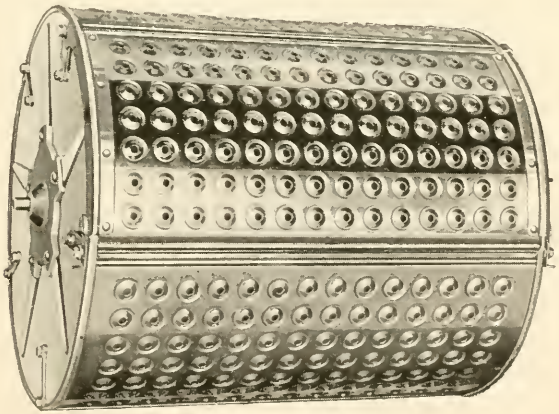
Further, remove from your mind any misconception as to the injurious effect of such solutions upon clothing when properly used,

or any idea that clothes washed in such a machine as the THOR after methods to be hereafter described, could possibly harm the most delicate articles. Can you not see *that washing solutions, rightly made, which affect and break down grease in a few moments, are far less dangerous than the long continued rub-a-dub-rubbing of a washboard* method? Such *solutions attack the grease between the fibres; the washboard wears out the fibres themselves.* Which do you prefer? A "cake of soap" does not enter into modern machine washing—all soap must be shaved, powdered, and dissolved with other agents in the wash water.

But the last, and probably the most important step to successful machine washing is the principle of the cleansing power of water when applied with force, as brought to such mechanical perfection in the THOR cylinder machine. For a long time I myself could not understand how, even with a proper soap solution, the clothes could be washed clean. I saw the motor turning, I watched the cylinder revolve, I observed it reverse after each eight times around in one direction—but still I did not grasp this new principle of machine washing.

Do you, too, still wonder how a washing machine drives out dirt?

Imagine for a moment a dirty city pavement or street. Think of a street cleaner appearing with his hose, and see him attach it to a water supply. Watch him turn on the hose. Notice how,



LUMINOID CYLINDER

The double turned edges of the holes in the Luminoid Cylinder are beaded, which absolutely prevents clothes from catching or tearing.

instantly, the grease and litter of the pavement flies before the onrush of the water stream as he plays it before him, leaving the pavement startlingly clean.

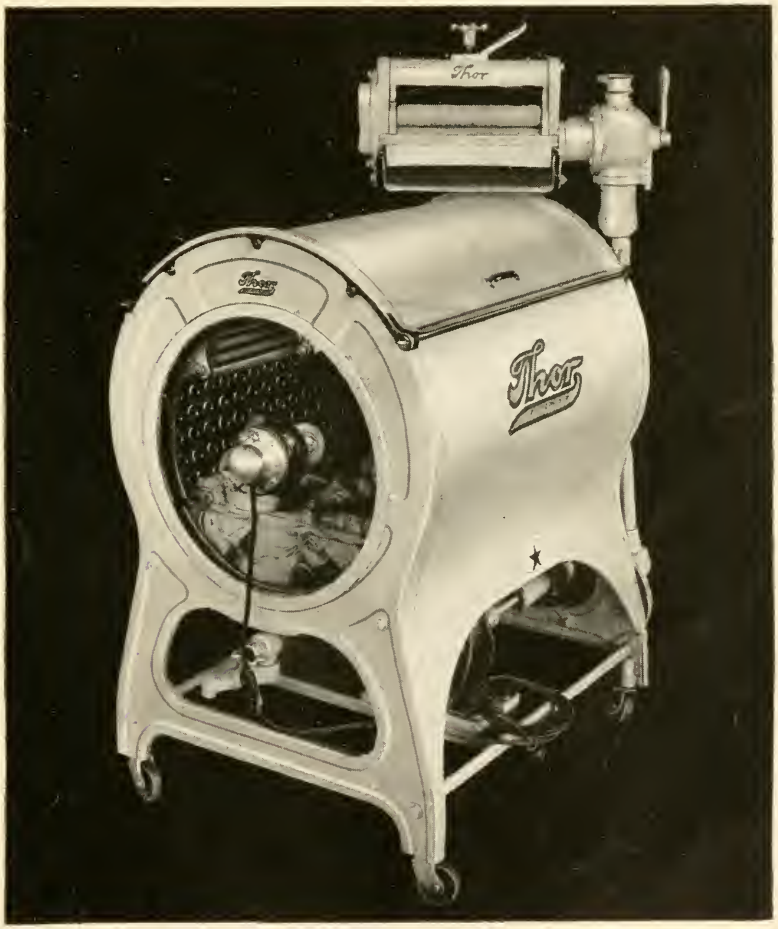
But suppose that the water were shut up in a tight metal box or tub, and that instead of being thrown in only one direction, it was forced now forward, now down, now up again, in an endless change of position as it struck the sides of the tub. And that further, the tub was fitted with a perforated cylinder containing soiled clothes, and that, as the cylinder revolved within the tub, the water was forced through those countless holes, out, and back, and over. If you looked in the cylinder you would also see that at intervals along its sides were narrow bars or "lifters", and that as the cylinder went around, these bars caught up and "lifted" the clothes to the top, there to drop them back into the water of their own weight and with much force—but instantly "lifting" the next batch up and dropping it—over and again, as long as the cylinder revolved. And all the time, the warm and sudsy water is pouring in and over and through the clothes, impelled by the continuous, steady force exerted by the motor. Perhaps now you can see how clothes are washed clean in a THOR washer!

Letting the Force of Water Clean Your Clothes

The man with the hose played the water only a few moments on one spot—the wash water in a THOR machine strikes continuously back and forth and between the fibres of the clothes for the whole 10 to 15 minutes of the washing period; the street water was cold—in the washer it is warm and strong with the proper solutions; but most important, the THOR machine is so constructed as to give this wonderful and forceful "drop"—this cleansing power to the water as it "drops" the load from top to bottom of the cylinder at each revolution. The clothes are constantly in motion and the dirt is being forced from the fibres, yet there is no pounding device, no harmful "dolly", no "suction cups", to press or damage the finest lace. The THOR is the perfection of the new, modern principles of machine washing. If you can understand why a hose playing a moment on the street will remove grime and dirt, you will certainly grasp the understanding of machine washing—how the continuous, ever-revolving cylinder, reversing in its tub of agitated suds and with the power of each "drop" of the load, will wash soil out of textile fibres far more effectively and with less wear to the clothing than any hand rubbing or pounding device you could employ.

Surely every modern woman must throw the old rub-a-dub practices out of her mind, just as she will throw the drudgery wash-

board out of her laundry! No housekeeper today persists in roasting her Sunday dinner over a spit when she can buy an insulated oven, or in using a dirt-scattering corn broom when she can procure a dust-absorbing vacuum cleaner. So too, where is the housekeeper of this progressive year who will refuse to understand the new, slightly different, but still very simple principles which make machine washing a success?



No. 32 THOR—Family Size.

(Exhibition Machine with glass end to show action of clothes in cylinder.)

CHAPTER II

How to Prepare and Use Soap Solutions for Machine Washing

IT WAS pointed out that one of the most important steps in successful machine washing was the use of the right cleansing solutions. The worker operating a machine must lay aside the idea of using soap in cake or solid form, and realize that to get the maximum efficiency from soap it must be cut up and dissolved so that every particle blends with the wash water. All bar soap should be shaved or cut fine, added to cold water, and brought slowly to boil until the liquid is clear and of an amber shade.

Or powdered soap ground into minute particles may be purchased, which owing to its form, will save the labor of hand cutting and dissolve evenly and quickly. Possibly such powdered soap is the best of all for washing machine use; but it must not be confused with the common "washing powders" which contain not only soap, but varying amounts of other materials, resin, sand, etc. It is wisest and much more economical and safe not to buy these "powders", but to use the best grade of pure soap, and add at home the desired borax, soda or other grease-cutting substances. In this way the exact amount of such cleansers as required can be "built-in" to the soap solution, and the housewife be assured of purity, and more definite solutions for each different class of washing.

If I were asked the one besetting sin of American housekeepers in the past, I believe I should say that it was the reckless and harmful misuse of washing soda! How often have we carelessly added a "handful of soda" to every tub or pail of water! Washing soda is the strongest alkali, and while it is excellent to soften very hard water, and to "cut" grease, it is injurious to wools, silks and colors, and should never be thrown into the wash water, but carefully measured and added when necessary to the dissolved soap solution, and the heating continued until all the soda crystals are also dissolved. If the water is soft, there are other cleansers such as borax and ammonia, kerosene, etc., which are safer and which can be used on colored as well as white clothes.

Borax and ammonia are also alkalis cutting grease and having mild bleaching properties. Borax is the safest, and ½ cup may be added to the rinse water of flannels to whiten them. If ammonia is used it should not be "household" ammonia, but the concentrated kind, purchased of a druggist, which may then be diluted with two or four parts of water as needed. Turpentine, kerosene and paraffin are excellent when very greasy colored clothes are washed, since

they "cut" the grease without harming colors. For all flannels and colored goods only the purest white soap (containing no resin or free alkali) should be employed.

A washing for a family of five requires 2 to 3 cakes of white soap. If you have hard water, soften it by adding borax only—a tablespoonful to each cylinder of clothes. Dissolve borax in water before adding to washing.

1—Washing solution for General Washing (soft water)

1 cup powdered soap or 1 bar best white laundry soap
2 tablespoons borax
2 quarts water

Dissolve shaved soap in hot water heated slowly, cool, and add borax. If powdered soap is used, mix to a thick cream with cold water, then add hot and dissolve perfectly. Use in proportion of one cup of solution to each load of clothes. This may be used safely on common flannels and on coarse colored goods, as kitchen aprons, men's shirts, etc.

2—Washing Solution for Fine Flannels or Colored Goods

1 large bar best white soap
2 tablespoons borax
4 quarts water

Dissolve soap in heated water, cool and add borax. Use in proportion of one cup of solution to each load of lightweight flannels, or double this strength for heavy blankets. (If purity of powdered soap is certain, make as in solution).

3—Soap Bark Solution for Very Delicate Colors or Black Fabrics

4 cups "soap bark" (bought at druggist)
1 gallon of water

Boil slowly twenty minutes, strain and use this emulsion in place of soap solution, rinsing well.

4—Washing Solution for Very Greasy Colored Clothes

½ bar white laundry soap or about 3 ounces soap powder
½ cup turpentine
1 gallon lukewarm water

Dissolve soap and add turpentine. Use in proportion of about ½ cup of solution to each washing load as of greasy overalls, shirts, or colored fabrics affected with grease, paint, vaseline or varnish, washing in lukewarm water only.

Hurley Soap

Some years ago it was impossible to obtain granulated or powdered soap that could be relied upon. The Hurley Machine Company has succeeded in bringing out a powdered soap which they unreservedly guarantee. The soap is composed of ingredients, in just the right proportion, to obtain the maximum cleansing efficiency, and nothing that can in any way injure the fabric; linens, blankets, finest laces, are washed perfectly. Using the soap according to directions enables you to obtain a uniform suds each washday, bringing your clothes always to the same degree of whiteness.

Hurley soap is packed in 5 lb. boxes, 25 lb. pails and 250 lb. barrels.

Hurley Soap is ready for immediate use. No cutting up and boiling is necessary. Sprinkle in a few ounces on the revolving cylinder—that is all. In a very few minutes you have just the right suds. It saves you time and work.

Hurley Soap is economical to use. There is no waste—because every particle contains 100% cleansing efficiency. Six ounces of Hurley Soap will do the work of three 9-ounce bars of laundry soap, or 18 ounces ordinary soap powder.

CHAPTER III

How to Remove Stains and Set Colors

NO MATTER whether clothing be washed by hand or machine, it is necessary to know how to remove stains and to prevent colored goods from fading or becoming disfigured.

Stains on fabrics or garments should always be removed as soon as possible. The older a stain is the harder it "sets". A stain not only disfigures but is also likely to eat away the fibre of the cloth. Always treat stains before washing as the washwater is likely to "set" them so they are very difficult or impossible to remove.

In removing stains, remember that acids injure vegetable fibres and alkalis injure animal fibres. Wherever possible, use water either hot or cold, and sometimes steam (from a tea-kettle spout). When an acid is used on cotton or linen goods, finish by rubbing with a weak solution of sodium acetate (or other mild alkali) to neutralize the acid and protect the fabric. Water sponging is not safe as it merely dilutes the acid.

Stains are removed by three different types of action—depend-

ing upon the nature of the fabric and of the stain itself. These three ways are:

1—Absorbing.
2—Dissolving.
3—Bleaching.

An efficient housewife should have a complete collection of stain removers, carefully labeled, at hand, for prompt use. A glass medicine dropper is very convenient for use in treating stains. Any druggist can be of help in making up a collection of stain removers.

1—TO USE ABSORBENTS

Cover grease spots with powdered absorbents, such as talcum, fuller's earth, French chalk, starch or bolted meal and let stand for several hours. Brush carefully and repeat if needed. For dry blood or ink stains, starch paste is an excellent absorbent. Cover freshly spilled liquids with any of above powders or pieces of blotting paper to prevent the liquid from spreading and soaking into the fabric.

Another method of absorbing stains is to lay the stained fabric on white blotting paper (or soft unglazed white paper) cover with absorbent powder or more paper, and apply a warm iron. Repeat, using fresh paper or powder until the stain is entirely removed.

2—TO USE SOLVENTS

Water—Soak washable goods in cold water and wash with cold or tepid water and white soap. Use hot water in the same way or by stretching the stained goods over a bowl and pouring boiling water from a height.

Note—Hot water sets some stains, such as blood, meat juice, milk and egg. Place non-washable materials over a pad of white cloth or absorbent paper—sponge, using very little water at a time. Change the pad as it becomes soiled or wet. Rub gently till dry. Caution—water spots some materials; experiment with a sample.

Other solvents, such as alcohol, benzine, carbon tetra-chloride, chloroform, ether, gasoline and turpentine, can be used on materials that water will spot. Place the stained goods over a pad of cloth, apply the solvent, and work from the edge of the stain to the center. Change the under pad frequently.

3—TO USE BLEACHING AGENTS

A number of short applications of dilute bleaches are safer than long applications of strong bleaches. Always remember a bleach is likely to remove dye from colored fabrics. Sunlight, lemon juice, sour milk, borax, sulphur, oxalic acid, hydrogen peroxide, potassium permanganate or Javelle water are commonly used bleaches.

Place the stain, such as fruit, ink, iron, etc., over a bowl of hot water and apply the bleaching agent a drop at a time. When the stain changes color, dip into the water. Rinse with ammonia and then clear water. Caution—Use Javelle water only on white cotton and linen. If the potassium permanganate leaves a pink stain, remove it with dilute oxalic acid. Never add Javelle water carelessly to wash water—*use it as a bleach only.*

DIRECTIONS FOR PREPARING STAIN REMOVERS

Javelle Water—One-half pound chloride of lime dissolved in two quarts cold water. Dissolve one pound of washing soda in one quart of boiling water. Pour

the clear liquid from the chloride of lime into a bottle and mix with the solution of washing soda. Cork and keep in a dark place.

Oxalic Acid—POISON. Dissolve one ounce of the acid crystals in three-quarters of a cup of warm water.

Potassium Permanganate—Dissolve one teaspoon crystals in one pint water.

Hydrogen Peroxide—Add a few drops of ammonia just before using to make it work more quickly.

REMOVAL OF STAINS

NOTE:—After removing a stain you will sometimes find the color of the fabric has faded. Colors may often be revived by sponging lightly with pure acetic acid or the proper dye color dissolved in benzine.

Blood and Meat Juice—

1—Never put into hot water as that "sets" the stain. Soak at once in cold or lukewarm water, rub with soap and wash.

2—A paste of raw starch mixed with cold water will remove these stains on flannel, blankets, and heavy goods. Repeat until stain disappears.

Bluing—Boil the stained material twenty minutes. Add vinegar, if a bleach is necessary.

Chocolate, Cocoa, Tea and Coffee—

1—If Cream has been added to Coffee, first apply a grease solvent. Wet spot with cold water, cover with borax paste and wash with cold water.

2—Pour on boiling water from a height. If necessary, bleach with potassium permanganate or Javelle water. (White goods only.)

Egg—Wash in cold water, then warm water and soap.

Fruit and Fruit Juices—Treat same as Coffee stains.

Grass Stains—

1—Wash at once with cold water and soap.

2—Wet the spot, add dry cream of tartar (and an equal amount of salt, if goods are colored), keeping spot over a basin of steaming water (or teakettle spout).

3—For colored materials, dissolve spot by sponging with alcohol or ether or apply molasses or a paste of soap and cooking soda and let stand over night.

Grease, Oil, Cream—

1—For wash goods, use warm water and soap.

2—If material would be spotted by water, use an absorbent, such as alcohol, benzine, carbon tetra-chloride, chloroform, ether, gasoline or turpentine—as directed under "Solvents" above.

3—Use dry absorbents, such as fuller's earth.

Indelible Pencil—

1—Soak in alcohol and wash with water and soap.

2—Wash with soap and water and apply potassium permanganate as a last resort.

Ink—

1—Moisten with salt and lemon juice and lay in bright sunlight. Repeat.

2—Soak fresh stains in sour milk or buttermilk.

3—Use an absorbent with a warm iron.

4—Soak stain with weak solution of oxalic acid, rinse in water to which a few drops of ammonia have been added.

5—Apply a few drops of oxalic acid, then a few drops of Javelle water and rinse at once in clear, boiling water.

Iodine—

1—Soak or sponge with ammonia.

2—Prepare starch as for laundry purposes, immerse stained material and boil.

3—Wash with alcohol.

Iron Rust—

1—Use salt, lemon juice and sunlight.

2—Boil stain in cream of tartar (4 teaspoons cream of tartar to one pint of water).

3—Place spot over a bowl of boiling water and treat with or dilute by hydro-

chloric acid and dip instantly into hot water. Borax or a few drops of ammonia in the water are desirable.

Kerosene—Use soap and warm water.

Machine Oil—
1—Use soap and cold water.
2—Sponge with turpentine.

Medicine—Soak in alcohol, dilute oxalic acid or boiling water.

Mildew—
(If mildew has grown into fabric, it cannot be removed.)
1—If stain is fresh, wash with cold water and soap.
2—Soak in sour milk, lay in sun without rinsing.
3—Cover with paste of fuller's earth, or powdered chalk and salt.
4—If stain is old, bleach with Javelle water or potassium permanganate, wash in hot water and place in sun.

Milk—Wash at once in cold water and then soap and water.

Mucus—
1—Soak in cold salt water (two tablespoons salt to one quart of water).
2—If very soiled, boil in salt water, using an enameled pan.

Paint, Varnish, Vaseline—
1—If fresh, use cold water and soap.
2—Sponge with turpentine.
3—Boil white cottons and linens in a solution of washing soda (3 teaspoons to a gallon of water).
4—Sponge delicate goods with carbon tetra-chloride.
5—Soften old stains with kerosene, then wash with turpentine, applying with a soft brush. (Vaseline stains which have been boiled cannot be removed.)

Perspiration—
1—Use warm water, ammonia and soap; bleach.
2—Soak stain in cold water, wash with borax and expose to sunshine. Remove odor with chloroform.

Pitch, Rosin—
1—Rub with fat or lard and wash.
2—Sponge with benzine, gasoline or carbon tetra-chloride.

Scorch—Wet and bleach in sunshine.

Shoe Polish—
Black—Rub with grease, wash in thick suds. Use turpentine on wool and silks.
Brown—Soap and water; sponge wool with alcohol, then wash in soap and water.

Soot—Brush lightly, then use an absorbent powder, such as fuller's earth.

Stove Polish—
1—Use cold water and soap.
2—Soak in gasoline or chloroform.

Tobacco—
1—Water and soap, followed by lemon juice bleach.
2—Use Javelle water on white cottons and linens.
3—Sponge wool with alcohol.

Water—Dampen entire garment, press while damp. Shake in steam and press.

Wax or Paraffin—Treat same as grease, using absorbents. Bleach if necessary.

Today with the high price of all textiles, it becomes a matter not only of choice but of necessity to keep colored goods from fading. A few moments' care will prevent expensive goods from "bleeding" or fading. If garments are made at home, it is always best to both shrink and set the colors before making up. Colors set with salt must be re-treated each time, but alum is good for all colors and gives more permanent results. Use cold water allow to stand overnight, then *let the article dry* before washing.

To Set Pink, Brown, Black, or Black and White—Use 2 cups salt to 1 gallon water.

To Set Blue, Green or Mauve—Use ½ cup strong vinegar or 1 tablespoon alum to 1 gallon cold water.

To Set Lavender—Use 1 tablespoon sugar of lead to 1 gallon cold water.

CHAPTER IV

The Right Way to Do Machine Washing

DO YOU soak the clothes when you use a machine?" "Is it necessary to boil them after washing?" "How long do you let the washer operate?" These are only a few of the many questions which women ask me about washing clothes the machine-way. Or every once in a while I still find a housekeeper saying: "I don't believe in washers, I just know they won't work, and the old way is good enough for me." Or perhaps again, "If you have to wash the flannels and colored things by hand, I don't think a machine is worth buying just for the white clothes."

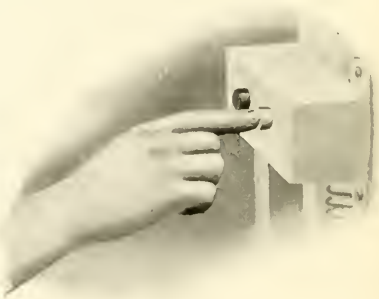
All of these remarks prove that the women asking them are not fully informed as to the right way to machine-wash, and that they do not see the wonderful results guaranteed by such a cylinder washer as the THOR. But before answering all such questions and giving the clear, plain rules for successful machine washing in every case, I wish to "tackle" this point of the woman who is convinced that such and such a device or labor-saver "won't work."

Whenever I hear this negative comment so forcibly expressed, I am reminded of a friend who once bought a fireless cooker. She knew I had used a fireless successfully for many years, so she told me she was going to buy that identical make. I did not see her until several months later, when naturally I asked her how she liked the cooker she had purchased. To my amazement she replied that she had returned it to the manufacturer.

"What was the matter with it?" I questioned.

"Oh, it was defective," she assured me; "I put the cereal in at night and when I took the pot out in the morning it was cold and the oatmeal still raw. No one can make me believe you can cook in that cold box! So I sent it right back to the manufacturer in three days."

Now my friend thought (and probably still thinks) that she bought a "defective" cooker, but I *know* that she had not learned to use that cooker right. And so whenever I hear a woman say that a certain well-tested device "won't work," I am certain that the device will work if the woman only understands and operates it intelligently. Over and over again I have found that all such "come-backs" about equipment arise because the worker buying it has



The Control Buttons

Starts and Stops Instantly at Your Touch

not studied the mechanism, tested it, used a little patience and followed well-worked-out rules for its operation.

I am quite sure that when somebody told your grandmother that finer, and more even, and perfect stitches could be taken in cloth with a needle set in a strange machine operated by a wheel and belt, than she could make by hand, that *she too, said that this new sewing machine "won't work"*—and it probably took some time for her to be convinced.

But you to-day know the perfection of sewing machine work, and

even if you cannot obtain the smoothest results the first time you place your foot on the treadle, will you foolishly condemn so wonderful a labor-saver as a sewing machine and say that it "won't work?" Yet *why do you repeat similar doubts about a washing machine,* especially when *you may not have used it the right way?*

Before you pass judgment on the THOR washer or exclaim that you "don't believe it will wash clean," or "can't see how it will wash without rubbing," etc., I have just one advice—*give the THOR a fair trial, and operate it after well-tested directions.* If thousands and thousands of other women have proved that the THOR gives perfect, satisfactory results over years of service, will the THOR not also wash *your family's clothes* successfully?

In the past years during which I have been a professional Household Efficiency Engineer, I have studied hundreds of tasks both in the factory and the home. From these experiments I have come to believe that there is always one best, one shortest, one easiest way to follow for any given piece of work. I like to call such a one best, shortest, easiest method a "standard practice." This means the set of directions, or practice of doing a task which is so good or perfect that it may really form a standard, and be followed over and over with the same perfect results. Just as we must follow a cooking recipe with its exact amounts, way of beating, temperature and time in the oven to bake a perfect cake, so too, we must follow the exact instructions as to amount of soap solution, temperature of water, and time of operation of the washer, to secure perfect washing results. *What a recipe is in cooking, a "standard practice" is in the handling of a machine, or process of work.*

What, then, is this "standard practice," or right way to machine-wash clothes with a THOR washer?

Standard Practice for THOR Washer

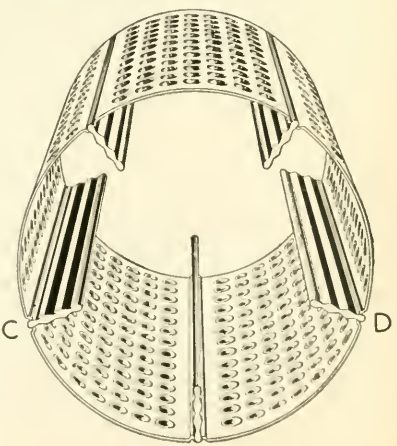
(THOR Washer, Two Wash Tubs, One Basket)

1—Look over clothing and remove spots and stains, sort and put to soak. (If the clothes are soaked over night, have the water as hot as you wish, but if the clothes are not soaked over night, do not have the water any hotter than you can bear your hand in. It is advisable to at least soak the clothes a few minutes before putting them in the machine.)

2—Water can be heated in an ordinary wash boiler, if you have no hot water plant.

3—Prepare soap solution to be used.

4—Wring pieces for first load (table linen, etc.), from soak tub, putting into the machine only enough pieces to come to the level of the lifters (C-D) in the cylinder. Do not pack the clothes in tight. If the cylinder is full, there will not be enough of a "drop." Put in hot water to just come below the two lifters (C-D).



All You Have to Do Is to Guide the Clothes Thru the Wringer

Water must not come above "water line." Fasten both catches on the cylinder cover securely. Start the machine. Pour in soap solution as cylinder revolves. This will start the suds immediately. Close the cover of the machine in order to maintain heat of the water. This first cylinderful of clothes should run about 15 minutes.

5—While the machine is washing the first load, wring the rest of the soaking clothes into a basket or to the top of the machine.

6—Drain stationary tubs and fill with clean, fresh, warm water for rinsing. The rinsing of the clothes is very important, as all soap must be removed from the clothes.

7—Prepare blue water (no directions can be given for preparing blue water, as bluing comes in so many degrees of strength). Use care that bluing is thoroughly mixed with water to prevent streaking of clothes.

8—Wring the washed clothes from the machine directly into boiler, if you are going to boil them; otherwise into the rinse tub. In wringing, always spread the

clothes out so that the wear on the rolls will be uniform. Don't have rolls too tight. When using a power wringer, the tendency is to keep the rolls too tight, particularly in wringing linens. This should not be done as extreme pressure might injure the fabric and make it difficult for ironing. For large extra pieces, such as bed-spreads, blankets, etc., the tension on the rolls should always be greatly lightened.

9—Put in the second lot of clothes and add enough soap solution to equal ¼ cake or one tablespoon Hurley Soap.

10—Prepare starch and put up lines.

11—Proceed with second and third load same as first. (In the average family three loads will take care of the white clothes.)

12—After the third cylinderful has been washed and wrung, draw out about one-fourth of the water, thus removing the sediment that has accumulated in the bottom of the machine. Add enough hot water to replace that drawn out and sufficient soap solution to make a good suds.

13—The flannel load follows the last white load. Water should be lukewarm, not too hot, or it is apt to shrink woolens. Wring loosely. Rinse in water of same temperature as wash water. Re-wring, pull into shape and dry in warm temperature, never cold or freezing.

14—Colored load follows the flannel load and may be washed in the same water. Wring from washer into clear, clean water. Wring back to top of machine or into well-strained starch. Colored garments should be shaken out well, so that colors will not be likely to run into one another.

15—If there are many black stockings, they may form a separate load. Always use clear, fresh, soapy water. Do not wash stockings in water from a white load, otherwise the lint from the white pieces will make stockings gray. Turn all stockings inside out before washing. Brown pairs, which often "bleed", or colored socks should be done by themselves. In washing white stockings, be careful that water is not hot. Hot water yellows white silk. Rinse all stockings particularly well, and hang up by the feet.

How to Arrange Your Washing

LOAD 1 (*White*)—Tablecloths, napkins, doilies, dresser scarfs, aprons.

LOAD 2 (*White*)—Sheets, cases, face towels, shirt waists, brassieres, cambric night or underwear, children's dresses, white petticoats, handkerchiefs.

LOAD 3 (*White*)—Cotton or mixed underwear, bath towels, kitchen towels, bed-spreads, covers, night wear, cotton crepes, all coarse meshed goods.

LOAD 4 (*Flannel*)—Night garments or underwear of flannel or outing flannel, petticoats, shirts, small quilts, children's woolen articles, blankets, all flannel finish or partly wool goods.

LOAD 5 (*Colored*)—Housedresses, men's shirts, rompers, children's dresses, aprons, all colored or partly colored goods of gingham, chambray, linen, etc.

I wish every woman to know also how successful is the THOR machine-way of washing those many articles which are included in our home furnishings, but which cannot be classed as ordinary washing. For instance, I had for years been in the habit of sending my bath mats and the small rugs used so commonly in summer, to the commercial laundry. The charge at first was about 25 cents each, but gradually it mounted until it was a heavy item of expense. Also, the rugs were faded badly. The laundress refused to handle them, because the lifting and work were so heavy.

But when I bought my THOR washer, I tried to wash one of the small rag rugs just for experiment. What was my surprise to see it go thru the wringer as pretty and clean as the day it was new! Ever since I have included the washing of all mats, cotton rugs, etc., with no extra effort at all.

How to Wash Bath Mats, Rag Rugs, etc.

Use 1½ cups of white-soap solution to each load and luke-warm water. Rinse in luke-warm water, fold mat lengthwise in half and run thru wringer. (Do not have wringer too tight.)

Another article of wear which used to be a bugaboo to wash was our heavy

winter bathrobes. Sometimes I sent them to the dry cleaner who charged about $2.00 a apiece. Or I paid the laundress extra, because they were so heavy. Now, we simply follow the directions for all wool washing:

How to Wash Bathrobes, Small Quilts, Wool Baby Coats, etc.

Use 2 cups of white-soap solution and luke-warm water. Rinse in two luke-warm waters. Run most carefully thru wringer, beginning with portion of hem and loosen wringer over sleeves, collar, etc. If quilts, fold and wring; if white wools, use 2 tablespoons of borax in rinse water.

Every housekeeper, expecially in soft-coal-using sections, knows how dirty lace or window curtains become. For fear of harming the lace, I used to allow my curtains to hang until they were too soiled. Now, I have found that the right way is to take them down and launder them often, as follows:

How to Wash Lace Curtains, Scrim, Net, etc.

Shake curtains free of loose dust. Soak overnight in cold water.

Wring loosely from water into machine. (Curtains must not come above the two lifters.) (C-D.) Add hot water and soapy solution sufficient to make good suds. Operate machine about 12 minutes. Wring loosely into rinse water, blue rinse with thin starch water, if white curtains are wanted or prepare strained coffee infusion, if curtains are wanted in ecru tone. Wring loosely and stretch or pin on frames.

No mother need fear that a THOR will harm even the most dainty baby garments. These may be treated with white-soap solution; operated from 5 to 10 minutes, and rinsed carefully in warm water. To cleanse diapers, brush off, then soak in pail of cold water and 1 tablespoon of ammonia. Wash in pure white-soap solution, wring into boiler, rinse and hang at once in sun.

How to Wash Overalls and Work Clothing

On the farm, or where some of the family use special work clothing, the THOR will be found of greatest value, since it will machine-wash clean, garments from which hand rubbing cannot adequately remove the soil and grease. If very greasy or with paint spots, cover spots with kerosene and let stand. Put garments in machine; cover with hot water and turpentine solution; operate 15 to 20 minutes; wring; rinse in hot water and wring again. Hang overalls up while wet, pull in shape and they will need no ironing.

How to Wash Clothes or Garments of Corduroy

Many articles of corduroy, such as leggins, carriage robes, coats, etc., which are most difficult to wash by hand are very quickly cleansed the machine-way. Follow the usual steps for washing woolens, using white-soap solution, luke-warm water, operating about 15 minutes. *Never put thru wringer* or wring with hands, as this crushes the fabric. Lift up while wet, stretch into shape and hang wet. While drying use soft brush to smooth down the nap. White outerwear corduroy skirts are washed as above, and hung evenly from belt.

In the past washing blankets at home was perhaps the heaviest of work, and indeed most laundresses refuse to do it, or demand extra pay as well as failing to wash them so as to retain their new and fluffy appearance. All the heavy lifting, wringing and "sousing" is done away with, and we can trustfully follow the slogan: "Let the THOR do it."

Follow directions for washing white woolens, as to temperature and soap solutions. Do not overload the washer, rather wash each large blanket separately. Rinse thoroughly in water of same temperature, using 2 tablespoons borax. Adjust the wringer rolls carefully, so as not to squeeze the fabric, hang by edges folded on the half lengthwise, so as to keep shape. Brush with a stiff whiskbroom while drying to raise the nap.

CHAPTER V

Which Way Do You Iron?

NEED scarcely recall to you the old-fashioned way of ironing—you take a three-pound or five pound iron and heat it on the stove until you can hear it *si-z-z* when you spit on it! Then you walk from the stove carrying the hot iron (who said "danger from machinery?") over to the board. Then you begin to iron; but in a few moments the iron has cooled and you need another, so back and forth you go, changing and carrying hot irons every five minutes. And in summer weather, you stand for hours in a hot room, walking and lifting irons, and using the greatest pressure from your own arms.

You may say that you do not use the old type flatirons, that you use an electric iron; that, indeed, is one step in advance. Even that is inefficient. Here is a tablecloth, for example, which measures three yards long. How many rubs do you have to press forward and back in order to iron that total surface? An electric iron has barely 24 square inches in its surface; the average tablecloth has 7,776 square inches of area. Now isn't it foolish to iron an area of nearly 8,000 inches with a heated tool measuring only 24 inches? Nothing could be a clearer case of "waste motion!"

What holds true of a tablecloth holds equally true of sheets, spreads, cases, napkins and towels—all of these large surfaces are ironed very slowly when any small hand iron is used. Also, since the material must be lifted frequently from one position on the board to another, there is always danger of creasing and uneven folding, as well as time lost in handling, etc. And last, all hand ironing *requires heavy pressure from your own arm* to give the polish and gloss.

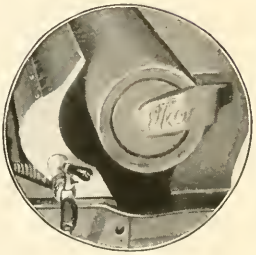
With the THOR ironer there is no lifting or carrying, no changing of temperature in the iron, no walking about the room, no tiring strain for your arm, shoulders and back.

A THOR ironer is simply a machine *having an ironing surface of wide area,* heated with gas, gasoline, or electricity, as you prefer,—and it *is evenly and uniformly heated all of the time.* In front of the "shoe" is a padded roller. You take your dampened article, slip it between the roller and the heated "shoe"—and presto!—it comes out on the table smooth and with the most perfect finish. And the ironer is so wide that you can iron not only one napkin, or a single towel at one time, but can place two or even more pieces side by side and iron them simultaneously—remembering all the while that your arm does not press, *you only guide the work.* That is, you can accomplish as fine or even finer work with the ironer than you could possibly do by hand—and yet *your arm is not fatigued, you feel no strain.*

One-Finger Control

Two handy buttons on the operating dial open and close the ironing shoe. Even the pressure on the roll is automatic. Sit down—touch one finger on the handy dial—guide the pieces through, that's all! Start or stop the roll at will.

Value of "Open-End" Roll



The Thor Ironer irons soft collars, cuffs and neckbands, ruffles and flounces. You can readily see how this feature of Thor construction gives you almost unlimited ironing service.

A further innovation of the THOR ironer is its wide-opening "shoe"; that is, the "shoe" drops back four inches away from the roll. This is a special feature with great advantages. It provides plenty of room for cleaning and polishing, and removing the starchy accumulations that frequently form on the "shoe". A touch of the button will cause the "shoe" to move back into working position after cleaning. The THOR is the only ironer with this wide-opening, convenient "shoe."

"But I have only a small wash. What is the use of buying an ironer for the flat work only and then have to iron all the other pieces in the same old way by hand?" some housekeeper may ask. I am so glad you brought up this question!

For I, too, remarked the same thing a number of years ago. I believed that an ironer was good only for the so-called "flat" pieces—sheets, table linen, towels, etc. But when I experimented with the THOR in connection with my work, I found out differently.

Children's Dresses, Rompers, Bungalow Aprons Pajamas, etc.

These garments, the large part of the weekly ironing, are easily and quickly done with the Thor. Many of them may be started at the bottom of hem and ironed up, sleeves and all in one operation.

Men's Shirts and Soft Collars

The entire shirt, even the neckband and gathers in the shoulders, is ironed perfectly by the Thor Ironer

First the sleeves, then the back, then the front of the shirt with the shoulders ironed at the open end of the roll and last of all neckband and cuffs.

Men's soft collars are ironed flat, then folded and creased by running the top one-half inch through the open-end roll.

Women's Blouses, Lingerie, Wash Dresses

You can iron your blouses and dresses on a Thor. The open-end roll makes it easy to iron ruffles, collars, cuffs and shoulder straps.

Lingerie may be done in a small fraction of the time required for hand ironing.

Every week I would surprise myself *at the different articles* I could *iron beautifully* on an ironing machine. There, for instance, are the housedresses, usually bulky and heavy pieces which require a heavy hot iron and good pressure. It used to take at least a half hour to make one such dress appear good-looking by hand.

But now I do them on the ironer, this way: I take the dress by the hem, shake it, and start the hem on the double into the ironer. I let it iron up to the belt, or where the gathers are at the waist. Then I release the dress, and take it out. I next start each sleeve, beginning at the cuff, and iron until I reach the armhole, then release. Then I fold waist part in center front and iron to armpit. Reverse, and iron other side. Iron back of dress same as front. By quick little turns of the hand, using the "open end roll," it is possible to do the collars, cuffs, and more fussy parts.

After you can iron a dress, it is just play to do a skirt, apron, or nightdress on the ironer. I generally start everything at the bottom hem, or with an apron or gown fold it in half, and run thru on the double. It's just a joy to see a pretty nightdress with kimono sleeves roll out in front of you, perfectly smooth, not a wrinkle, with all the lace, edging and embroidery pressed smooth and attractive like new. I like to do flannel night wear, too, because it looks so clean and fresh when ironed the machine way. The roller seems to raise the nap and the steady, even pressure makes all patterns come out clear and bright.

And don't let me forget shirts and brassieres, and such apparently difficult things. I couldn't get the knack of doing shirts for a while, but now it is no trouble at all. I iron the sleeves first, putting them in cuff-end first, and then release at the armholes. Next I fold back of shirt together, seam to seam, and run through at the end of ironer up to armpit, release shoe, and move slightly over towards end and finish up to gathers. Reverse and iron on other side in the same way. Then I lay button side of shirt next to roller (buttons down so that wrong side of shirt is up) and run through at end of ironer up to armpit, release shoe, move slightly over and finish around armhole and up to neck-band. The other half of the shirt is ironed in the same way. I fold yoke flat against back of shirt and start in corner-wise around the end of ironer. Then I finish neck-band and cuffs around end of ironer. Last I lay the whole body of shirt flat and finish off by running through ironer up to armpit. This gives the shirt a final finish.

Children's dresses are the most easy to do: Start at the hem and iron up, often doing the entire garment, sleeves and all, as it is laid out on the single ply on the roller.

But perhaps the greatest pleasure is to do linens, and doilies, and all pieces with embroidery and initials. I just love to run in a tray-cloth with scalloped edge and initial and watch the embroidery sink into the padding of the roll and be pressed there by the heated "shoe", and then roll out, smooth, lustrous and with the stitching all raised and perfect, rich and decorative again. All women who

Napkins and Small Flat Work

The old way — one piece at a time — slow, laborious. The Thor way—one dozen pieces in 10 minutes

Handkerchiefs, napkins, towels, etc., may be ironed and folded with perfect results in quick time. The machine automatically adjusts itself to different thicknesses as articles are folded.

Table Cloths, Bedspreads, etc.

30 to 45 minutes by hand. 5 to 8 minutes with the Thor

Glossy, snow white table linen, the pride of every housewife, glides lustrous and crisp from the Thor Ironer. Thor uniform pressure and heat gives far better results than laborious hand ironing—with only "finger tip effort".

Lace Curtains

No stretching frames are needed for lace curtains when you iron with a Thor. Merely dry your curtains and iron like a table cloth, stretching them to the proper width with your hands as they go through the machine. Ruffles may be quickly ironed with the open end of the roll.

love linens and embroidered pieces will really adore using the THOR ironer, just for the pleasure of seeing their handiwork look so beautiful after it has been ironed in the machine way.

And so, my housekeeping friend, the THOR ironer is not only for ironing "flat work", but you can iron with it practically 95% of all your clothes. And *it irons this 95% more beautifully, more exquisitely, than the most excellent laundress*—and in a far shorter time.

Granted that the ironer did no better work, think of the saving in time; then consider also that you can iron the heaviest sheets and pieces without fatiguing yourself a bit while you either stand or sit at a comfortable machine, in a cool room. *But the ironer does better work than can be done by hand, because, as I have said, the shoe is evenly and uniformly heated, and the pressure is always the same.*

When you consider all these advantages—which way will *you* iron? The THOR ironer comes in various sizes to meet the requirements of different families, and in different models to suit those living in either city or country. List given at the back of this booklet.

The following is a sample of a big ironing covering the actual work done for 3 adults and 3 children in less than 3 hours. This ironing done by hand would take about 8 hours.

Flat Work

16 Sheets	30 min.	folded	
16 Pillow cases	16	"	"
2 Bed spreads	8	"	"
36 Towels	12	"	"
24 Handkerchiefs	6	"	"
3 Tablecloths, 2½ yds.	12	"	"
12 Napkins	6	"	"
	90 min.	folded	1 hr. 30 min.

Exclusive of Flat Work

6 Shirts	20 min.	
6 Boys' shirts (collars attached)	18	"
3 House aprons	12	"
6 Suits men's athletic underwear	6	"
2 Pr. pajamas	6	"
3 Night gowns	5	"
3 Ladies' envelope suits	7	"
8 Soft collars	3	"
2 Pr. children's bloomers	5	"
2 Petticoats	4	"
	86 min.	1 hr. 26 min.
Total		2 hr. 56 min.

CHAPTER VI

The High Cost of Cleaning

OW many persons think of laundry work as cleaning? We are all familiar with discussions on the "high cost of living"; but how much of this "high cost" is brought about by the money we lay out every week, either when we send clothing to the commercial laundry, or when we have the work done at home and pay $3.00 and more per day to the laundress? Most budgets allow only a small sum for all "operating"—such as light, fuel, soap, service, laundry, etc. But I think that if we stopped to estimate, many of us would find that we are spending on the cost of cleaning our clothes alone, enough money to pay for first-class season tickets to the opera, or to send one of our children a year through college.

There has recently been a widespread suggestion to the housekeeper that she avoid all washday troubles by a plan of "send it to the laundry." One winter week when our pipes were frozen and the wash heavy, I decided to take advantage of this enticing offer, "send it to the laundry," and thus relieve myself of all work and responsibility. Although we are a family of eight, I thought it would be more fair, for experiment's sake, to *send only the clothing and pieces which would be used by an average family of four*—a mother, father, and two children of school age—*for one week.* So I carefully sorted the wash, made duplicate lists, and sent the bundle to a good suburban laundry with the distinct understanding that these clothes were to be "rough dried only." I wanted to find out exactly what it cost to wash clothes, apart from the ironing charge.

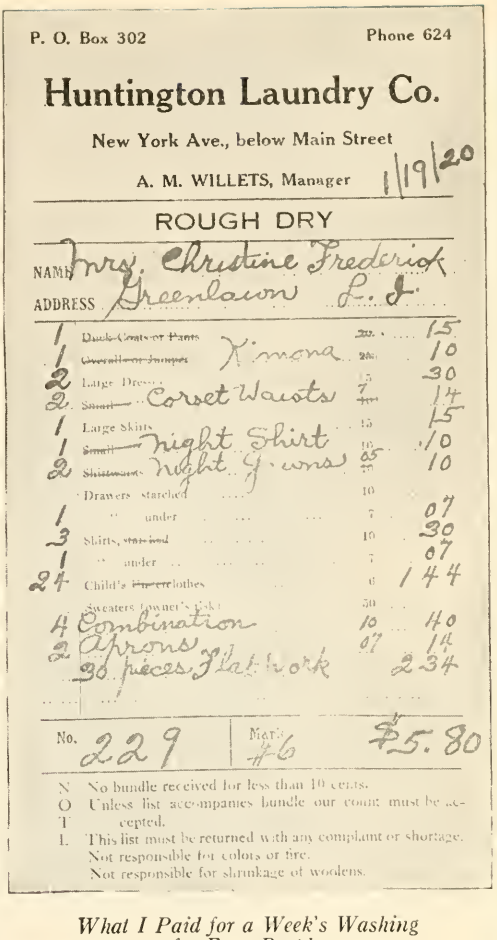
Imagine my amazement when I received the bill. I certainly was not prepared to pay this staggering sum. The clothes and pieces used by an average family of four—for washing only—cost $5.80! Think of it, $5.80 for washing a small, average wash, without any petticoats, summer skirts, or fancy pieces—$5.80!

The next thought which struck me was, *what* would it have cost if I had sent the clothes and pieces of my *usual family* of eight persons? Or think what I would have had to *pay for the ironing in addition!* Why, for almost the sum which they charged for washing each middy blouse or child's romper, I could have bought new blouses and clothes! This was winter—I hated to think what a summer washing would cost with even modest changes of white apparel. This was my first, last, and only desire to "send it to the laundry."

But suppose that I did send my clothing to the laundry, both for washing and ironing, and say it averaged $5 a week (which is far too low an estimate), do you realize that $5 weekly, or $20 a month, is the interest on $4,000 at 6 per cent.? Or put in another way, $20 is 20 per cent. of one-fifth of a salary of $100 a month; or

10 per cent. or one-tenth of a salary of $200 a month; or almost 7 per cent. of a salary of $300 a month? Now *which of us has the right to spend even an unnecessary 7 per cent.* of our salary *on washing clothes,* when there are so many lasting and more profitable ways of spending money on books, music, or travel, or in paying for a home of our own?

I need hardly try and prove that the *average family* (even the family of four persons on an income of $300 to $400 a month) *cannot afford to have its clothes washed at a commercial laundry.* And the more children, or the greater the number of persons, the higher the ratio and more unbearable laundry costs become.



P. O. Box 302 Phone 624

Huntington Laundry Co.

New York Ave., below Main Street

A. M. WILLETS, Manager 1/19/20

ROUGH DRY

NAME Mrs. Christine Frederick

ADDRESS Greenlawn L. I.

1	~~Duck Coats or Pants~~ Kimona	20	15
1	~~Overalls or Jumper~~	20	10
2	Large Dresses Corset Waists	15 7	30 14
2	~~Small~~	7	15
1	Large Skirts	15	
1	~~Small~~ night Shirt	10	10
2	~~Shirtwaists~~ night Gowns	05	10
	Drawers starched	10	
1	" unstarched	7	07
3	Skirts, starched	10	30
1	" unstarched	7	07
24	Child's ~~Piece~~ clothes	6	144
	Sweaters (owner's risk)	50	
4	Combination	10	40
2	Aprons	07	14
	98 pieces Flat work		234

No. 229 Mark #6 $5.80

N No bundle received for less than 10 cents.
O Unless list accompanies bundle our count must be ac-
T cepted.
I. This list must be returned with any complaint or shortage.
Not responsible for colors or fire.
Not responsible for shrinkage of woolens.

What I Paid for a Week's Washing for Four People

I travel and lecture in all parts of the country, and I seem to hear nothing else but "high cost" of this or that. But do those women who become so excited at a 2-cent raise in the price of steak, *compare the money they spend on "operating" and laundry to their total incomes?* They wail about the high cost of food (which they can't control), but *what steps do they take to reduce the high cost of cleaning,* which they *can* control, by refusing to pay the outrageous commercial laundry fees, and instead save money by machine-washing in their own homes?

"But I don't send my clothes to the laundry; I have a laundress come and do them," some woman remarks. If *you* can still find some other woman willing to wash *your* dirty clothes, you are indeed a lucky housekeeper, for there are thousands and thousands of homes which cannot for any price secure either permanent servants or workers by the day. And that laundress if you do find her will ask

$3.00 and carfare, and you will provide her meals in addition, so that you are paying a high cost of cleaning in any event.

Washing at laundry for average family of 4	$ 5.80
Ironing of above wash at laundry	6.00
	$11.80

Washing and Ironing by Laundress for Average Family of Four

Wages (plus carfare)	$ 3.16
Meals	.60
Wear on clothes by washboard method	.50
Soap, starch and fuel	.37
(Some pieces left over for housekeeper to iron)	
	$4.63

Washing and Ironing by THOR Washer and Ironing Machine for Family of Four

Weekly investment cost of THOR washer	$0.25
Weekly investment cost of THOR ironer	.30
2 hours' current for washing	.04
2 hours' current for ironing	.04
2 hours' fuel for ironing	.06
Starch, soap, but less fuel	.15
(No pieces left over)	
	$0.84

Some difference between 84 cents and either $4 or $11, if the clothes are done by a laundress or at the laundry! But this difference is when we estimate the clothes for a family of four—think what it would be if we had six or eight or more persons to wash and iron for! And, listen, *the investment cost of the THOR washer and ironer is the same, no matter whether you have four or double that number in the family.* You pay only 55 cents a week for the service of the THOR Laundry Helpers, no matter how long they work, or how many pieces to be ironed, or how many you wash for—of what other laundress can you say the same?

When a laundress is engaged for a definite day, she comes if weather is good or bad, and if it is bad, then your wash is delayed, and you have to finish it the next clear day. Or, still oftener, if it is raining, she doesn't show up, and then you lose "your" day, and either have to postpone washing for a week, thus making you short of clothes, or you try to do some of it by hand, and wear yourself all out with the rubbing and the slop. But with a THOR washer, you are independent, and can *wash any time the weather is at its best, and you prefer doing the work.*

If you do have a laundress and wish to have her continue to do

the work, then the THOR will save her time. I know one wealthy home in Philadelphia which used to have a laundress come three days each week. They were very particular, and the work had to be done with great care. But the mistress bought a THOR washer, and took her laundress down to the local office of the Hurley Machine Co., to see how it was operated, and in a short time the laundress *accomplished the same washing in one day.* I myself seldom recommend equipment to be used by servants or hired help, but I am frank to say that even the typical "washwoman" likes to use the THOR. I know I was surprised to see how my own assistant took to it, and although she had hand-rubbed for years, she very quickly learned the principles of machine washing, and indeed has been of great help to me in co-operating on this booklet.

Can you afford this "high cost of cleaning?" If not, then at once investigate the purchase of a THOR washer and ironer, in order to reduce your "operating cost" and keep it low in your budget. 750,000 women have found the THOR a practical means of reducing their laundry expense.

CHAPTER VII

The Woman and the Machine

"Man's work is from sun to sun, but woman's work is never done."

OW many millions of women have thought this, as they looked up from their pots and pans and washboards and gazed off at men who leave and come at regular hours, and whose work seems so much more interesting and stimulating and devoid of petty routine than their own! The man who farms, the man who builds, the man who manages an office —is it true that his work is really easier? Why can man's work be reduced to regular hours while a woman drags on and on from morn till night? I will tell you—men are lazy—yes!—*lazy*—so lazy that they sat down and invented machines to do the work for them! The farmer rides comfortably on his tractor, the builder uses electric cranes and drills, and the office man does not wear out his brains to add up a column of figures—he lets an adding machine do it for him!

Yes, the one chief reason why man's work has progressed, why he has been able to cut down the effort and drudgery of many tasks, is *because he uses machinery to replace hand labor.* But women have not let machinery serve them. They were not used to it, and possibly in the past they were afraid of something with wheels and gears and

moving parts. The war, however, splendidly showed that woman could run machinery as well as man, and in factory and munition plants women were responsible for operating the most complicated tools of war production.

If women can operate machinery so successfully in the factory why are they not willing to try it in the household where it will save them untold effort, labor and time? This is the "Machine Age" for the home, and no housekeeper of today need sit around and bewail that her "work is never done," if she only buys the right labor-savers and learns to use them properly.

In the first place, there is no need to be "afraid of machinery." Take the THOR washer as the example of the highest type machine for the home. All moving parts are enclosed in the single tight-fitting housing at the side. Nothing can catch your clothes, nothing can catch your fingers while you work.

If you wish to start the washer, press the white button and then pull the cylinder lever (release) at the side toward you, and the machine starts—that is all you have to do. When you want to stop it, push the cylinder lever (release) from you, press the black button, and the machine instantly comes to a full stop. It's easier than turning on and off electric lights—and any child can do that with safety!

It is just the same with the wringer; if you wish to operate it press the white button, turn the short upright lever on the wringer to the right side, press the button and the wringer will wring from you. If you wish to pass the clothes in the other direction, turn the lever down to the left, and the clothes will be wrung backwards. You don't have any crank to turn—the wringer does the work. *All you have to do is guide the clothes,* taking care not to bunch them in the middle, which wears the rolls unnecessarily. And if the clothes should become wound about the rolls, just touch the Wringer Release —and instantly the pressure is released. This Wringer Release is a special patented feature to be found only on the THOR, and positively makes any accident impossible.

But the chief feature of the THOR washer which makes it so safe to operate is the Atalog. This is a device which connects between the motor and the driving mechanism in such a way that it is impossible to "over-strain" the motor. Even if you should put an overload into the machine, the Atalog would relieve the strain so that the motor would not be harmed. This wonderful protective device is found only on the THOR, and is one of the reasons why a woman can see why she should buy the THOR washer in preference to all others. The Atalog makes washing automatic. "Afraid of a machine?"—why any woman who can run a sewing machine with its exposed needle, its belt that sometimes flies off, its wheel which must be stopped and started so carefully by hand, *will find a THOR washer safer and easier to run than any sewing machine!*

Safer Than Hand Methods

The same points of perfect safety hold true of the THOR ironer. There is nothing to get out of order. All moving parts are covered just as they are in the THOR washer. The operator only has to guide the pieces through the ironer. The spring pressure is automatic and will adjust for any thickness of material, either a handkerchief or a folded table cloth. If she wishes, the worker may instantly open the ironing "shoe." It is impossible to have blistered hands with a THOR ironer. Talk about "danger in machinery"—why, there is 90 per cent. more danger in using an old-fashioned flatiron which may slide, turn over or fall off the board, than there is in using the THOR ironer on its firm stable stand.

No, women must not be "afraid of machinery!" There is no need to be afraid with such perfected mechanisms as the THOR washer and THOR ironer. Just a half-hour practice will enable any woman to operate either machine in the right way. The point that the woman must see is this: that unless she learns to use machinery, her home is doomed. The old-fashioned servant girl, the "disappearing Lizzie," has gone forever, and we do not know that we would have her back if we could with all her inefficiency and waste. If we cannot get help we shall be forced to shut up house and endure the restricted living of the apartment or hotel with its lack of privacy and narrowing atmosphere. The other and the real solution is to "carry on" our housekeeping with the aid of modern machinery and labor-savers. With such mechanical servants we can save time, save labor, and reduce our housekeeping to a short period of definite hours—and then "woman's work *will* be done." *The THOR washer is saving time and labor in 750,000 homes today.*

CHAPTER VIII

Let Your Husband Read This

Perhaps you are one of the splendid modern women who do understand machinery. But in any case, let your husband read over this chapter with you, because men are more familiar with the technical construction of machinery and I want your husband to be satisfied on every point of the mechanical perfection of the THOR.

First, notice the neat, attractive appearance of the washer. It is self-cleanable, because after you have washed the clothes, all you need to do is to start the cylinder (with cylinder cover closed) and flush out the dirty water. Then the rinsing, and your machine is sweet and clean. Leave the cover of the machine open, so that it will air.

There is nothing "cheap" about the THOR. It is expertly made, and will last for years.

The point of no exposed moving parts has been mentioned. Let

your husband see how few parts there are—few parts mean little or no repair. The cylinder and the wringer are both shaft-driven by smooth running, silent, spiral-cut spur and bevel gears. All other gears are highest grade cast chilled gears—another patented feature found only in the THOR. The tub or body is made of 26-gauge sheet steel or of 20-ounce copper, double seamed and soldered, which makes it water-tight and rust-proof. The cylinders are of polished maple, MetalO, or of Luminoid.

The THOR rests on easy-rolling swivel casters, so that no effort is required to move the machine to any desired place.

Notice again the special safety wringer release which instantly releases pressure of rolls. The swinging wringer is all metal, which makes it indestructible.

Have him look at the high grade standard make of motor. Remember the great value of the Atalog, the THOR patented motor protector which prevents overstrain of the motor. There is nothing to get out of order. See how easy to get at are the few places which require oiling. Reference to the instruction chart sent with the machine will enable you to locate every point where the machine needs lubrication, in order to give the best service. Your husband can explain where the grease cups are, the shaft, the lever, and show you how to release the wringer or any point in the machine's operation.

You will see that compared to other washing machines the THOR is not only the sturdiest, but the simplest, as well. There is nothing to get out of order, nothing which you will not be able to fully understand.

The same is true of the THOR Automatic Ironing Machine, which any girl of 15 can learn to operate in a few minutes. It is so smooth, so easy to keep clean, so automatic, that there is no hard work and ironing becomes a real pleasure.

On the ironing machine, notice the special drilled hole gas burner pipe which was immediately adopted and recommended by gas experts, among them the Consolidated Gas and Electric Company of New York.

The open end shoe permits ironing 95 per cent. of your work.

The three-point suspension is found only in the THOR machine. By this special construction any unevenness of the floor in the laundry is overcome. It insures even pressure along the entire length of the roll which is very important.

Another important thing is the shaft drive. This not only eliminates the use of belts which break and slip, but it is possible to use a small but powerful motor which greatly reduces the operating cost.

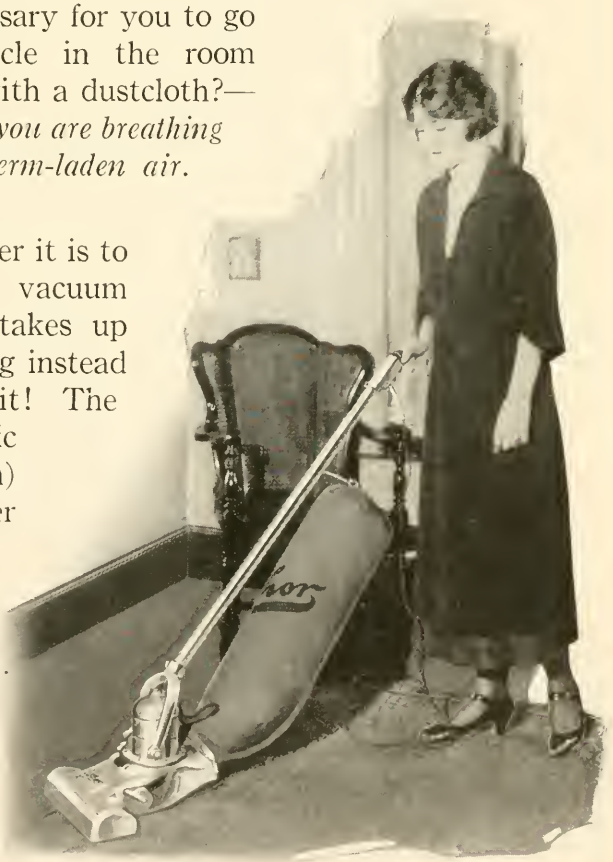
If you are planning a new home, The Hurley Machine Company will be glad to send you free a blue print plan of a model laundry.

Another Important THOR Labor Saver

IT IS perfectly obvious that housecleaning done in the old way with a broom and duster is unhealthful, yet many women continue to do their work this way because they have not stopped to think how unsanitary it really is.

Just consider for a moment—isn't it foolish to sweep a rug or a carpet vigorously with a broom, only to raise clouds of dust that settle back again over the curtains and draperies, and over the furniture, making it necessary for you to go over each article in the room painstakingly with a dustcloth?—*and all the time you are breathing this dust and germ-laden air.*

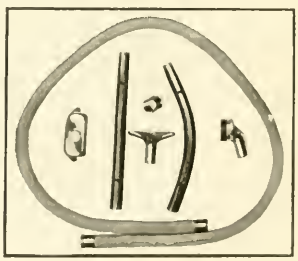
How much better it is to use a modern vacuum cleaner which takes up the dirt in a bag instead of scattering it! The THOR Electric (Floating Brush) Vacuum Cleaner sweeps and sucks up threads, lint and litter, and draws out all dust and grit that is embedded



in rugs, in draperies, and in upholstered furniture. It can be used to clean the radiators, the mouldings, and the baseboards. It passes easily from the rug to the bare floor and back again, because the "floating" brush takes care of any unevenness.

Every care has been used to make the THOR Cleaner easy to use and care for. Raising the handle to a vertical position automatically stops the brush. The current is shut off in a second by the trigger snap-switch which is within finger's reach as you hold the handle. Rubber wheels prevent marring the floors, woodwork and furniture. It is a combination brush and suction cleaner so it can be used either way at the will of the operator. Only a moment is necessary to remove the cap at the side of the cleaner to insert the attachments for cleaning draperies and furniture.

The THOR is equipped with a General Electric universal motor.



It has no belts to give trouble; it is direct driven. A special "aeroplane" fan gives the maximum cleaning efficiency. No special care is necessary, just put a few drops of oil in the motor occasionally.

Like all other products manufactured by the Hurley Machine Company, the THOR Electric Vacuum Cleaner is absolutely guaranteed and it is well deserving of a place in your home.

No. 77 THOR VACUUM CLEANER
(With Floating Brush)

Some Special Features on THOR No. 77 Vacuum Cleaner

1. 12-inch Direct Driven Floating Brush. No Belts.

2. Aeroplane Fan which increases cleaning efficiency.

3. Raising the handle to a vertical position automatically stops the brush.

4. Revolving brush is idle when attachments are used.

5. Can be used as Suction or Brush Cleaner at will of the operator.

6. Automatic Air Shut-off in Nozzle when attachments are used.

7. Handle of Special Aluminum Tubing with Wires Enclosed.

8. Pistol Grip Handle with Trigger Switch.

9. Solid Rubber Wheels with Oilless Bearing.

10. General Electric Universal Motor.

11. Total weight complete 16 lbs.

Where Your THOR Machine is Made

(Covering Nine Acres)

IF YOU could see your THOR washer, ironer and vacuum cleaner being made, you would not be surprised at their wonderful efficiency and quality. For Quality is the watchword of the entire Hurley Machine Company. Every part is subjected to the most rigid inspection before it leaves the factory; the work of each employee is checked and counterchecked, so that there can be no error, no flaw on any machine.

The Hurley Machine Company is a Fifteen Million Dollar corporation, with a reputation for sixteen years of fair, square dealing. It has the largest area in the world devoted to the manufacturing of electric equipment for reducing home drudgery. This could be possible only through satisfied customers which the THOR has created in the past, and it is interesting to know that there are today 750,000 THOR washers in use.

The Hurley Machine Company stands not only for efficiency in the home, but for the highest type of factory efficiency and satisfied, happy workers. No effort is spared to protect, watch, and give a square deal to the thousands of workers who produce the THOR machines to help you in your housekeeping.

List of

Thor

ELECTRIC LABOR-SAVERS

Electric Washing Machines

No. 25—*Capacity 6 sheets or equivalent*

Galvanized steel body, wood cylinder, stationary wringer.

Copper body, wood cylinder, stationary wringer.

Galvanized steel body, wood or MetalO cylinder, swinging wringer.

Copper body, wood or MetalO cylinder, swinging wringer.

No. 28—*Capacity 12 sheets or equivalent*

Galvanized steel body, special copper cylinder, stationary wringer.

Copper body, special copper cylinder, stationary wringer.

No. 32—Family Size—ALL METAL—*Capacity 8 sheets or equivalent*

Galvanized steel body, Luminoid cylinder, swinging wringer.

Copper body, Luminoid cylinder, swinging wringer.

Electric Ironing Machines

No. 75 AUTOMATIC—44-Inch Roll
Gas heated, Gasoline heated, Electric heated.

No. 90 AUTOMATIC—50-Inch Roll
Gas heated, Gasoline heated.

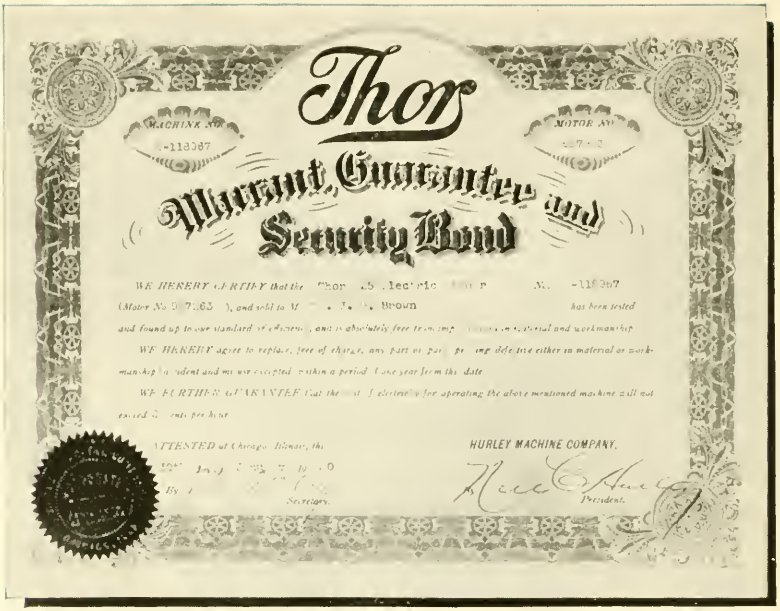
Any THOR washer or ironer may be equipped with a 32-volt motor, for use with a farm-lighting plant. Or, if desired, machines can be furnished without motor to be operated from gas engines.

Electric Vacuum Cleaners

No. 77 Electric (with Floating Brush)

Hurley Powdered Soap

5-lb. packages
25-lb. pails
250-lb. barrels



The Hurley Guarantee

Every purchaser of a THOR washing machine, THOR ironing machine, or a THOR vacuum cleaner, receives a Warrant, Guarantee and Security Bond. This engraved certificate is your absolute protection. It is your complete assurance that the particular machine you buy has been thoroughly tested at the factory and passed as perfect by a skilled inspector before it is shipped. There can be no "come-back" with any THOR labor-saver manufactured by the Hurley Machine Co. The name "Hurley Machine Co." stands back of every machine you buy bearing the THOR label. This guarantee further states that the Hurley Machine Co. will supply, free of charge, any part or parts which are defective, within a full year's period.

It also guarantees the cost of current used in operation—that even on any current rate, the charge for running the THOR No. 25 or the No. 32 machines *will not exceed two cents per hour*, and that even for operating the largest sizes the cost will not be more than three cents per hour. There is no possible chance of buying a device which will break your pocketbook to pay for its operation. You are not buying a "pig in a poke" when you purchase any one of the THOR labor-savers. You know that it is perfect mechanically, that it will give service, and above all, what it will cost to run it. The HURLEY GUARANTEE protects your interests fully.

EASY PAYMENTS

OUR Electric light Company or ANY THOR dealer will deliver to your home any or all of the THOR labor-savers for a small cash sum down, $10.00 brings the washer or ironer, $5.00 brings the cleaner, balance to be paid in twelve small monthly installments.

This liberal selling policy puts the benefits of the THOR home efficiency devices *within the reach of all purses*. It permits you to secure the help and services of these wonderful machines *as you pay for them*. You don't have to wait until you pay the full amount —you can begin to use them at once. In this way the THOR products pay for themselves, because the moment you begin to use them you can stop paying for other costly hand labor.

You can do with less hired service by the month or day, or entirely replace the usually wasteful, expensive human worker if you use either a THOR washer, a THOR ironer, or the THOR vacuum cleaner. Put your home on the modern, up-to-date business basis which makes it possible for every housekeeper to have a "margin of leisure," solve the servant problem, and reduce the H. C. of L.

Visit the THOR dealer in your city or town today. Ask to have a free demonstration. Operate the devices yourself, see how safe and easy they are, and how quickly you get results. Then talk to the dealer and he will tell you all about this unusual, helpful, "easy payment plan."

THERE are THOR dealers in 6,000 cities and towns throughout the country who sell and service THORS. All of the THOR machines may be featured and sold through the local electric light or power company. In still other cases, the THOR has as agent a prominent electrical dealer, in whose windows you will see these devices exhibited. The THOR is always demonstrated and attracts large crowds at the best electrical and household efficiency shows and exhibits.

In addition to the 6,000 dealers, there are exclusive THOR Electric Shops, for sales and service, in the following Cities:

CALIFORNIA
Los Angeles
306 West Seventh Street
San Francisco
124 Post Street

ILLINOIS
Chicago
24 E. Jackson Boulevard

INDIANA
Fort Wayne
1204 Calhoun Street

IOWA
Des Moines
908 Walnut Street

MASSACHUSETTS
Boston
209 Tremont Street

MICHIGAN
Grand Rapids
130 Pearl Street

MINNESOTA
Minneapolis
830 Marquette Avenue

MISSOURI
Kansas City
817 Walnut Street
St. Louis
1006 Locust Street

OHIO
Akron (Rogers-Thor Electric Shop)
18 East Market Street
Canton (Rogers-Thor Electric Shop)
138 Fifth Street, N.W.
Cincinnati
140 East Sixth Street
Cleveland (Rogers-Thor Electric Shop)
31–33 Colonial Arcade
Toledo
219 Superior Street

PENNSYLVANIA
Philadelphia
42 South 17th Street

UTAH
Salt Lake City
157 Regent Street

WISCONSIN
Milwaukee
114 Grand Avenue

See if the THOR is carried by your electrical dealer, by the electric light company, by a hardware, a furniture, or a department store; or, if there is a special branch store in your particular city or town. If you cannot locate such dealer, or if you wish to ask further questions or order direct, you can write to—

THE HURLEY MACHINE CO.

General Offices and Works,
West 22nd Street and 54th Avenue,
CHICAGO

Branches { **New York—147 West 42nd Street**
Toronto—66 Temperance Street
London—N. W. 1-8 Pancras Rd., Kings Cross

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By
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